

944-003.207

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Hwang et al.

Examiner: M. Vu

Serial No. 10/802,391

Art Unit: 2617

Filed: March 16, 2004

Supervisory Examiner: J. Feild

For: **Enhanced Uplink Dedicated Channel - Application Protocol Over Iub/Iur**

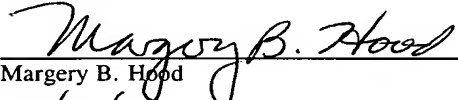
Commissioner for Patents  
U.S. Patent and Trademark Office  
Mail Stop Amendment - Fee  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR PRE-APPEAL REVIEW**

Sir:

This communication is in response to the final Office Action of November 19, 2008. For the reasons detailed below, Applicant respectfully requests reconsideration of rejected claims. This paper is accompanied by a Notice of Appeal. The pending claims are as follows.

I hereby certify that this correspondence is being deposited today in the U.S. Mail addressed to: Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, Virginia 22313-1450.

  
\_\_\_\_\_  
Margery B. Hood  
2/18/09  
Date

receiving a payload packet from a network element after the payload packet has been sent from the user equipment to the network element over the radio uplink that has been configured, wherein at least one of said respective messages enables said configuring the radio uplink.

54. (Previously Presented) The method of claim 53, wherein said sending by said radio network controller includes sending at least one parameter to said network element indicative of boundaries within which choices may be made by said network element.

55. (Previously Presented) The method of claim 53, further comprising sending the information on an interface between the radio network controller and another radio network controller for relay to another network element for configuring an uplink between the other network element and the user equipment.

56. (Previously Presented) The method of claim 53 wherein prior to said sending said information element on said interface between said network element and said radio network controller, said radio network controller decides a value for said cell specific parameter or said radio link specific parameter, or both, for said sending said information element with said cell specific parameter and said radio link specific parameter in said one or more messages on said interface from said radio network controller to said network element.

57. (Previously Presented) The method of claim 53, wherein said radio network controller is responsive to signaling from said network element with a proposed value or values for said cell specific parameter, said radio link specific parameter, or both, and said radio network controller carries out said sending said information element either confirming or changing said proposed value or values.

PENDING CLAIMS:

1-49 CANCELLED

50. (Previously Presented) Method of configuring a radio uplink comprising:  
receiving information having both a cell specific parameter and a radio link specific parameter, in respective messages on an interface between a network element and a radio network controller for configuring the radio uplink from a user equipment to the network element,  
configuring the radio uplink at the network element, and  
receiving a payload packet from the user equipment to the network element over the radio uplink after the uplink is configured at the network element,  
wherein at least one of said respective messages enables said configuring the radio uplink.
51. (Previously Presented) The method of claim 50, further comprising:  
acknowledging correct reception of the payload packet at the network element on a radio downlink from the network element to the user equipment, and  
sending the payload packet from the network element to the radio network controller following said correct reception from the user equipment.
52. (Previously Presented) The method of claim 50, wherein said receiving by said network element includes receiving at least one parameter indicative of boundaries within which choices may be made by said network element.
53. (Previously Presented) Method of configuring a radio uplink comprising:  
sending information having both a cell specific parameter and a radio link specific parameter, in respective messages on an interface to a network element from a radio network controller for configuring the radio uplink from a user equipment to the network element, and

58. (Previously Presented) The method of claim 55, wherein said configuring the uplink between the other network element and the user equipment comprises configuring the uplink between the other network element and the user equipment followed by sending the payload packet from the user equipment to the other network element over the radio uplink between the user equipment and the other network element for sending the payload packet to the radio network controller.

59. (Previously Presented) The method of claim 58, further comprising:  
acknowledging correct reception of the payload packet at the network element on a radio downlink from the network element to the user equipment, and  
acknowledging correct reception of the payload packet at the other network element on a radio downlink from the other network element to the user equipment.

60. (Previously Presented) A system, comprising:  
a network element and a radio network controller connected by a signalling interface and arranged to configure a radio uplink from a user equipment to the network element, the interface being arranged to convey messages having information elements that contain parameters  
wherein information having both a cell specific parameter and a radio link specific parameter is in respective messages on the interface between the network element and the radio network controller,  
wherein the user equipment is arranged to send a payload packet to the network element over the radio uplink after the uplink is configured at the user equipment for sending the payload packet to the radio network controller, and  
wherein at least one of said respective messages is arranged to enable said configuring the radio uplink.

61. (Previously Presented) A data structure configured to be at least temporarily stored in a computer readable medium, the data structure comprising:

information having both a cell specific parameter and a radio link specific parameter to be transferred in respective messages on an interface between a network element and a radio network controller in order to configure a radio uplink from a user equipment to the network element,

wherein said configuring is carried out in order to enable transmission of a payload packet from the user equipment to the network element over the radio uplink and from the network element to the radio network controller, and

wherein at least one of said respective messages enables said configuring the radio uplink.

62. (Previously Presented) Apparatus comprising:

a first interface configured to communicate information having both a cell specific parameter and a radio link specific parameter in respective messages to a network element from the apparatus in order to configure a radio uplink from user equipment to the network element; and

a second interface configured to communicate the information between the apparatus which is a radio network controller and a second radio network controller connected to a second network element,

wherein at least one of said respective messages is arranged to enable said configuring the radio uplink.

63. (Previously Presented) The apparatus of claim 62, wherein the information is arranged to configure a second radio uplink between the second network element and the user equipment, the first radio network controller being configured to receive a payload packet from the network element over the first interface, the second radio network controller being configured to receive the payload packet from the second network element after receipt by the second network element from the user equipment over the second radio uplink, and the second radio network controller being configured to send the payload packet received from the second network element to the

radio network controller following the reception by the second network element from the user equipment for transfer from the second radio network controller to the first radio network controller.

64. (Previously Presented) Apparatus comprising:

a first interface arranged to communicate information having both a cell specific parameter and a radio link specific parameter in respective messages between the apparatus, which is a network element, and a radio network controller in order to configure an uplink channel on a radio link; and

a second interface arranged to communicate signals related to said configuring the uplink channel between the network element and the user equipment, and arranged to receive a payload packet from the user equipment to the network element over the radio uplink after said configuring the uplink channel on the radio link is carried out by the network element,

wherein the first interface is also arranged to convey the payload packet from the network element to the radio network controller following the reception by the network element from the user equipment, and

wherein at least one of said respective messages is arranged to enable said configuring the uplink.

65. (Previously Presented) Apparatus comprising:

transceiver configured to receive and transmit signals over an interface between the apparatus, which is a user equipment, and a network element; and

a control arranged to process signalling between the network element and the user equipment in order to configure a radio uplink from user equipment to a network element,

wherein the user equipment is configured to send a payload packet from the user equipment to the network element over the radio uplink after the uplink is configured.

66. (Previously Presented) A data structure for at least temporary storage in a computer readable medium, the data structure comprising:

information having both a cell specific parameter and a radio link specific parameter for transfer in respective messages on an interface between a network element and a user equipment in order to configure a radio uplink from the user equipment to the network element,

wherein said configuring is carried out at the network element, for enabling transmission of a payload packet from the user equipment to the network element over the radio uplink and from the network element to the radio network controller

wherein at least one of said respective messages is arranged to enable said configuring the radio uplink.

67. (Previously Presented) Apparatus comprising:

a first means for communicating information having both a cell specific parameter and a radio link specific parameter in respective messages between the apparatus, which is a network element, and a radio network controller for configuring an uplink channel on a radio link; and

a second means for communicating signals related to said configuring the uplink channel between the network element and the user equipment, and arranged to receive a payload packet from the user equipment to the network element over the radio uplink after said configuring the uplink channel on the radio link is carried out by the network element,

wherein the first means is also for conveying the payload packet from the network element to the radio network controller following the reception by the network element from the user equipment, and

wherein at least one of said respective messages is arranged to enable said configuring the uplink.

68. (Previously Presented) The apparatus of claim 67,

wherein the network element is arranged to acknowledge reception of the payload packet, on a radio downlink from the network element to the user equipment.

### **REMARKS**

Claims 50-68 are pending. They stand rejected under 35 U.S.C. § 103(a) in view of two new references: *Heo* (U.S. Patent Application No. 2004/0160925) and *Kim* (U.S. Patent Application No. 2005/0013263). Please note that the new *Kim* reference (U.S. Patent Application No. 2005/0013263) has no inventors in common with the other *Kim* reference (U.S. Patent Application No. 2002/0061764) that was cited earlier in this case.

The present independent claims are method claim 1; apparatus claims 62, 64, 65, and 67; data structure claims 61 and 66; and system claim 60. All of these independent claims stand rejected as obvious from *Heo* in view of *Kim*.

#### **Brief Summary of *Heo* Reference**

The *Heo* invention is for retransmitting uplink data in a CDMA communication system. The system includes a first Node B, a user equipment (UE) located near the first Node B, and a second Node B near the first Node B. The second Node B has a soft handover region overlapping with the first Node B. A radio network controller (RNC) is connected to the first Node B and the second Node B. When the UE is located in a non-soft handover region near the first Node B, the UE transmits uplink data to the first Node B. However, when the UE is located in the soft handover region, it transmits the uplink data to both the first Node B and the second Node B.

#### **Brief Summary of the Present Invention**

The present invention involves parameters that are used on an interface between network elements in order to configure an enhanced uplink from a UE to a network element. The parameters are communicated over an interface between an RNC and a Node Bs in order to be able to setup and re-configure the enhanced uplink from the UE. The present invention also discloses acknowledging to the UE correct reception of a payload packet at a network element, and sending the payload packet from the network element to the RNC.



**Reasons Why the *Heo* Reference Is Not an Adequate Reference**

In Figure 2 of *Heo*, the only communication between network elements is the signal 211 and the signal 221, and there is no suggestion in *Heo* that either of those signals is for configuring an uplink from UE 204 as presently claimed in present independent claim 1. The signal 221 of *Heo* is not mentioned anywhere in *Heo* except in Figure 2, where it is described identically to the signal 211 of *Heo*. The signal 211 of *Heo* is mentioned only in Figure 2 of *Heo* and in paragraph [0044] of *Heo*. Paragraph [0044] of *Heo* states that the signal 211 merely contains “EUDCH data” that has been received from the UE. According to paragraph [0041] of *Heo*, EUDCH data “refers to data transmitted over a EUDCH,” and there is no suggestion in *Heo* that the EUDCH data includes the present claimed cell specific parameter and radio link specific parameter.

Furthermore, *Heo* states in paragraph [0042] that “It will be assumed in FIG. 2 that no error has occurred in the EUDCH data 212 that the Node B 202 received from the UE 204.” Thus, according to this cited embodiment of *Heo*, there is no need to configure or reconfigure the uplink from the user equipment to Node B 202, because that uplink is error-free.

*Heo* also states in paragraph [0043]: “It will be assumed in FIG. 2 that an error has occurred in the EUDCH data 222 that the Node B 203 received from the UE 204.” In that case, the RNC 201 of *Heo* receives error-free EUDCH data from Node B 202 instead of from Node B 203. Therefore, it is very clear that the signals 211 and 221 in Figure 2 of *Heo* are merely payload packets. They do not contain any information for configuring or reconfiguring the uplink from the UE to either of the Node Bs, contrary to what is presently claimed. *Heo* does disclose steps to address the error in the uplink transmission from the UE to the Node B 203, but the signals 211 and 221 of *Heo* do not enable those steps, contrary to what is presently claimed.

The Office Action states at page 3 (first paragraph) that the signals 211 and 221 in Figure 2 of *Heo* are “for configuring the radio uplink from a user equipment to the network element.” Applicant respectfully submits that that is incorrect. The signals 211 and 221 in Figure 2 of *Heo*

are merely payload packets. According to paragraph [0041] of *Heo*, EUDCH data “refers to data transmitted over a EUDCH” and *Heo* nowhere suggests that the EUDCH data includes the present claimed cell specific parameter and radio link specific parameter for configuring the uplink from the UE.

Also, please note that present claim 62, for example, is very clear that the parameters are sent from an RNC to a network element. In contrast, Figure 2 of *Heo* clearly shows that signals 211 and 221 directed to the RNC instead of from the RNC as presently claimed.

**Reasons Why the *Kim* Reference Does Not Compensate for Inadequacy of *Heo***

The *Kim* reference is directed toward a CDMA system that includes a downlink dedicated physical control channel (having fields that control uplink transport power, a transport format, and a pilot) and that also includes a downlink dedicated physical data channel (having fields for transmitting downlink data). If data is abnormally received over an enhanced uplink dedicated channel (EUDCH), then negative acknowledgment information including a request for retransmission is sent in positions created by puncturing the downlink dedicated physical data channel.

The Office Action (at page 3) acknowledges that *Heo* does not suggest that the respective messages (between the network element and the RNC) enable configuration of the uplink from the UE to the network element. The Office Action asserts that *Kim* discloses these features, at paragraphs [0007-0018] and [0043-0046] of *Kim*.

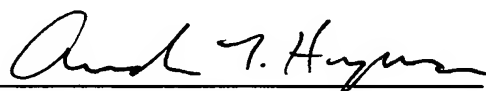
Applicant has studied paragraphs [0007-0018] and [0043-0046] of *Kim* and cannot locate any suggestion of messages between the network element and the RNC that enable configuration of the uplink from the UE to the network element. On the contrary, *Kim* only mentions the RNC in paragraph [0007], and that paragraph merely describes the usual structure of a WCDMA system, without addressing any signals to or from the RNC that are used to configure an uplink from the UE to a Node B.

CONCLUSION

Applicant respectfully submits that the obviousness rejections do not apply against the present independent claims, which should therefore be allowed along with the claims depending therefrom. Early allowance of the independent claims, and the pending claims depending therefrom, is earnestly solicited.

Respectfully submitted,

Dated: 17 Feb. 2009

  
Andrew T. Hyman  
Attorney for Applicant  
Registration No. 45,858

WARE, FRESSOLA, VAN DER  
SLUYS & ADOLPHSON LLP  
Building Five, Bradford Green  
755 Main Street, P.O. Box 224  
Monroe, CT 06468  
Telephone: (203) 261-1234  
Facsimile: (203) 261-5676  
USPTO Customer No. 004955